

1. List all the factors of 98.
2. Which one of the following numbers is a prime?

39, 49, 59, 69, 99

3. Perform the following division. Show both the quotient and the remainder.
For example, $19 \div 7 = 2 \text{ R } 5$.

$$2008 \div 15 =$$

4. Perform the following operations. Show all steps.

(a) $-2 - 7 =$

(b) $-2(-7) =$

(c) $-5^2 =$

(d) $(-5)^2 =$

(e) $|12 - 2| - 3| =$

(f) $|12 - |2 - 3|| =$

(g) $|12| - 2 - 3| =$

(h) $-5(4 - 3(-2)) =$

(i) $2((5^2 - (-4)^2) - 10)^2 - 11 =$

(j) $-2 + (-2)^2 + (-2)^3 =$

(k) $|2 + (-7)| =$

(l) $|2| + |-7| =$

(m) $\frac{3(-4^2 - 2 \cdot 7)}{2^3 - (-1)^3} + 4 - 2(3^3 - (-5)^2) =$

(n) $((1 - 2)^2 - 3)^2 - 4 =$

(o) $\sqrt{169 - 144} =$

(p) $\sqrt{169} - \sqrt{144} =$

(q) $\left(7 + \frac{2 \cdot 5 - 4}{1^2 - (-2)^2}\right) 4 - 3 =$

(r) $\frac{3 - (-7)}{-7 - 3} =$

5. Evaluate $\frac{-a + 2a^2 - 3}{2a - 3} =$ if

(a) $a = 9$

(b) $a = -5$

(c) $a = 0$

6. Consider the equation $10(x^2 - 4) + x^3 = -x + 2(x^2 + 1)$. In each case, determine whether the number given is a solution of the equation or not.

(a) $x = 0$

(b) $x = 2$

(c) $x = -2$

(d) $x = -3$

(e) $x = -7$

7. Simplify.

(a) $3(2a - 1) - 4(a - 3) =$

(b) $(3p - 2)^2 =$

(c) $(3p - 2)(3p + 2) =$